Knowledge is the Key:
Educating, Training, and Developing Operational Artists for the 21st Century

A Monograph
by

Major Vincent K. Brooks

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School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	12 May 1992	Monograph

4. TITLE AND SUBTITLE
Knowledge is the Key: Educating, Training, and Developing Operational Artists for the 21st Century

5. FUNDING NUMBERS

6. AUTHOR(S)
Major Vincent K. Brooks, Infantry

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
United States Army Command and General Staff College
ATTN: ATZL-SWV
Fort Leavenworth, Kansas 66027-6900

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

See attached sheet.

14. SUBJECT TERMS
Military education; joint education; operational art; Skelton Panel; SAMS; SAW; SAAS; AFSC.

15. NUMBER OF PAGES
71

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UN

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Major Vincent K. Brooks

Title of Monograph: Knowledge is the Key: Educating, Training, and Developing Operational Artists for the 21st Century.

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Accepted this 2nd **day of** May **1992**

ABSTRACT

Knowledge is the Key: Educating, Training, and Developing Operational Artists for the 21st Century by MAJ Vincent K. Brooks, USA, 71 pages.

Warfare in the modern era will be joint. However, the Armed Forces have been slow to make requisite changes. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 forced change by legislating reforms and ending the internecine quarrels which had impeded progress for decades. Joint warfare is the desired effect of the Goldwater-Nichols Act and the Armed Forces are making progress in the ability to conduct joint warfare. More progress is needed, however, before joint warfare becomes routine.

Practicing joint warfare requires a new way of educating officers. The House of Representatives Committee on the Armed Services Panel on Military Education (known as the Skelton Panel after its chairman, Representative Ike Skelton) explored the professional military education system and recommended ways of providing the type of education necessary to meet the spirit of the Goldwater-Nichols Act. The panel was particularly concerned with ensuring the education system provided the link between producing competent Service officers and competent joint officers.

The monograph carries on the Skelton Panel's focus of examination. It examines the background of the Goldwater-Nichols Act; the provisions of the act which address joint officer personnel policy; and the findings of the Skelton Panel and other panels, boards, and commissions which examined the professional military education system. This examination highlights the need for a program which educates officers to perform at the operational level of war, and develops operational artists. The monograph then makes an assessment of the current system of military education at the intermediate level (majors and lieutenant commanders). The assessment reviews and a compares the programs which orient on the operational level of war, namely, the joint professional military education programs imbedded in each Service's command and staff college curriculum; the three advanced studies programs -- the Army's School of Advanced Military Studies (SAMS), the Marine Corps' School of Advanced Warfighting (SAW), and the Air Force's School of Advanced Airpower Studies (SAAS); and the only joint professional military education course at the intermediate level, the Armed Forces Staff College. The comparison shows that there is no single program in existence that provides an in-depth education, oriented at the operational level of war, in a joint environment.

By using characteristics described in the reports of several panels and committees, combined with the best features of the current intermediate level education programs, the monograph provides a solution to the educational void in the form of an Armed Forces School of Advanced Operational Studies. The monograph makes recommendations for student selection, faculty composition, and functions.

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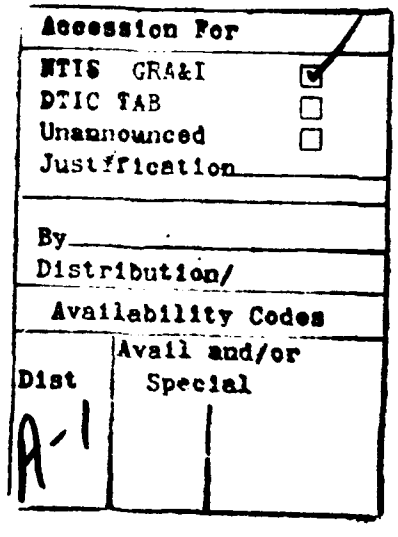


PART I.

Introduction

Education in the present is the foundation of everything that happens in the future.

-- Honorable Ike Skelton[1]

The 11 November 1991 edition of Joint Pub 1, Joint Warfare of the U.S. Armed Forces, proposes that the nature of warfare in the modern era is synonymous with joint warfare.[2] If this is true, modern warfare requires practitioners of the military art who can gather forces from different branches of service and blend their capabilities to produce synergistic effects in operations. The officer professional military education system has many institutions which develop officers to practice military art within the scope of their own Service. It is questionable how well the same system educates, trains, and develops officers who can effectively practice military art in the modern joint environment. This monograph will examine whether or not the current officer professional military education system is oriented on producing such practitioners and will make recommendations on how to better achieve the desired end.

In the 1980's the Armed Forces of the United States experienced a rebirth in military thinking, including a recognition of an operational art of war. This recognition marked a departure from the military methods of the past which were beset with Service parochialism and a lack of interoperability. Military failures and close scrutiny from within, as well as without, the Department of Defense revealed fundamental flaws in the way the United States conducted large scale military operations. The consistent finding was that all future operations undertaken by the United States would occur in a joint services arena.

In 1986 the Congress passed Public Law 99-433, known as the Goldwater-Nichols Department of Defense Reorganization Act of 1986. The act directed new requirements for defense organization and procedures in the joint arena. Subsequent commissions and panels examined new ways of educating, training, and developing officers to operate in this arena. Within the Department of Defense, the various Service command and staff colleges modified their programs of instruction to accommodate basic instruction in joint operations. Also, the curriculum of the Armed Forces Staff College changed to complete the joint education process. The result would be officers who are trained to function as members of a joint staff. This process, albeit a positive step, does not create operational artists.

Creating operational artists is not one of the stated purposes of any professional military education program, but, if the Armed Forces of the United States really require officers who are trained to plan and conduct joint military operations, while applying operational art, then another evolution may be required in the military education system to provide such officers.

A premise of this monograph is the belief that the development of operational artists must begin when an officer has roughly ten to fifteen years of service -- in other words, when the officer is at the intermediate level of military education. In this monograph, both the intermediate and senior levels will be addressed, but the focus is on the intermediate level. The intermediate level includes the Army, Navy, Marine Corps, and Air Force command and staff schools, all of which have an imbedded joint curriculum; the Army, Marine Corps, and Air Force advanced studies schools which provide education beyond the scope of the command and staff schools; and the joint schools at the Armed Forces Staff College.

The monograph has three major components. The first component focuses on identifying whether or not there is a need for a program to develop operational artists. It begins with a review of the history surrounding the Goldwater-Nichols Act of 1986, focusing on the findings of several panels which examined Department of Defense officer education programs. This analysis reveals not only the letter of the law, but the spirit intended by it. The report of the House Armed Services Committee Panel on Military Education, as the significant catalyst for change in the military education system, is the key report considered. The second component is an assessment of the current system of officer professional military education at the intermediate level. The assessment reviews and compares the intermediate level education programs beyond the Service command and staff schools which are aimed at educating officers at the operational level of war. The assessment reveals the incongruities that exist between the current professional development policies and the requirements (both letter and spirit) of the Goldwater-Nichols Act.. The third component is an analysis and synthesis of the previous components to determine whether the current system adequately educates, trains and develops operational artists.

PART II.

Identifying the Need for Developing Operational Artists

The experiences of the United States in World War II clearly identified the requirement to conduct warfare in a joint and combined environment. There were costly examples of failed integration between the Services and, in contrast, there were numerous examples of the synergy achieved when the different Services were integrated. The systemic changes required to pursue this joint warfare direction did not occur until after the war concluded. The first and perhaps most

significant step taken in improving the ability of the U.S. Armed Forces to conduct joint warfare was the National Security Act of 1947. This act was a culmination of extensive debates within the executive branch of the government and of compromises between the executive and legislative branches. President Truman had been urging Congress to combine the War Department and the Navy Department into a single Department of National Defense since 1945, but the unpopular idea was encumbered by many obstacles, including Service parochialism and the protection of Service prerogatives.[3]

Though it encompassed far more than the defense establishment, the act significantly changed the Armed Forces. The Departments of the Army, Navy, and the newly established Air Force were subordinated to the new Department of Defense (the Service secretaries still retained cabinet level status). The act established a Joint Chiefs of Staff system which included the Chiefs of Staff of the Army and the Air Force and the Chief of Naval Operations. Also, it created a Joint Staff to be drawn from each of the Services, not to exceed 100 members.[4] There were several minor adjustments to the 1947 Act, but the next major legislative change to the Department of Defense occurred in 1958.

The DoD Reorganization Act of 1958 directed that operational forces be assigned to the unified and specified commands. It removed the Service secretaries from the operational chain of command. The act expanded the size of the Joint Staff from 210 to 400 and made the Chairman of the Joint Chiefs of Staff a "voting" member.[5] Interestingly, President Dwight D. Eisenhower believed that the 1958 Act would ensure integrated joint operations by vesting power in the unified commands. In a special message submitted to Congress, he stated,

> "...Separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements with all Services, as one single concentrated effort. Peacetime preparatory and organizational activity must conform to this fact. Strategic and tactical planning must be completely

> unified, combat forces organized into unified commands, each equipped with the most efficient weapons systems that science can develop, singly led and prepared to fight as one regardless of Service."[6]

President Eisenhower's intent had a visionary character, but the 1958 Act did not cause the Armed Forces to achieve the intended level of joint cooperation. The military was left to implement the provisions of the 1958 Act but the joint operations failures of Operations BLUEBAT (Lebanon) and POWER PACK (Dominican Republic), and the command structure problems in Vietnam, Operation EAGLE CLAW (the Iranian hostage rescue mission), and Operation URGENT FURY (Grenada), proved repeatedly that Eisenhower was correct. Unfortunately, these operations also showed that the internecine quarrels between branches of Service still precluded meeting Eisenhower's intent of fighting as "one single concentrated effort."[7]

There was considerable, healthy debating on the issue of defense reform in the early 1980's within the defense establishment. The debates encompassed a broad array of issues including the need for reform in procurement, force structure, JCS organization and joint doctrine.[8] Concurrent with the reform debates in the defense establishment were similar debates in Congress. Congress was convinced that reform was necessary but that the Department of Defense would never make the necessary changes unless forced to do so. To Congress, the system was broken and could only be fixed by legislative action. If left to the Pentagon, there would be no real change.[9] This is not an unfounded conclusion since thirty-six major Department of Defense Reorganization Studies, conducted between 1949 and 1985, had not caused sufficient change.[10] Accordingly, Congress chose not to wait for the defense establishment to chart its own direction.

On October 1, 1986, Congress enacted Public Law 99-433 which became known as the Goldwater-Nichols Department of Defense Reorganization Act of

1986. This act was the third major legislative action since the 1947 and 1958 acts, but it was a radical departure from the past. The act set in place legislative requirements to cause an improvement in the ability of the U.S. Armed Forces to conduct joint operations. One might argue that the Goldwater-Nichols Act simply legislated many of the reforms that the defense establishment had been debating or studying for several years. The act ended the debate about the need for military reform, but, because of its strict provisions, new debates ensued about how the provisions would be met. Perhaps the most challenging of these provisions, and possibly the most intrusive, is the portion of the act embodied in Title IV -- Joint Officer Personnel Policy.

Title IV directs the Secretary of Defense to establish a joint specialty for officers who are qualified in joint matters. The act defines joint matters as those matters relating to the integrated employment of land, sea and air forces including matters relating to national military strategy; strategic planning and contingency planning; and command and control of combat operations under unified command.[11] It also delineates the promotion rates for officers performing joint duty, the education required for an officer to perform joint duty, and joint duty assignment lengths.[12]

Education is covered in Section 663 of Title IV which directs the Secretary of Defense to revise and review the curriculum of Joint Military Education Schools and other professional military education programs to strengthen the education of officers in joint matters. It further requires the Secretary of Defense to take measures to improve the training and experience of officers serving in senior joint positions.[13] Title IV, though clear in direction, did not fully articulate what the military education system was to produce. Consequently, numerous panels, commissions, reports and studies were undertaken to fill this void.

On November 13, 1987, Representative Les Aspin (Democrat from Wisconsin's First District), Chairman of the House of Representatives Committee on Armed Services, appointed a panel to focus solely on the military education system in the wake of the Goldwater-Nichols Act. The panel, entitled the Panel on Military Education, came to be known as the Skelton Panel after its chairman, Representative Ike Skelton (Democrat from Missouri's Fourth District).[14] The panel had a two-fold charter from the House Armed Services Committee. First, it was to review the Department of Defense plans for implementing the education provisions of the Goldwater-Nichols Act especially looking to see if the education system provided the link between producing competent Service officers and competent joint officers. Second, it was to address the ability of the Department of Defense military education system to encourage the development of exceptional military thinkers, planners, and strategists.[15] Given this as its charter, the Skelton Panel becomes the basis for revealing the intent and direction of the legislation.

The Skelton panel conducted a series of hearings to meet the requirements of its charter. After completing the hearings, the panel submitted thirty-five recommendations to the Secretary of Defense. In shaping its recommendations, the panel attempted to conform with the insights gained from World War II experiences, particularly with the spirit behind the establishment of the Army - Navy Staff College (ANSCOL) by the Joint Chiefs of Staff. The ANSCOL, which eventually evolved into the Armed Forces Staff College (AFSC), had the purpose of increasing the number of senior officers who had the knowledge and skills to employ joint forces. The panel believed that in establishing the ANSCOL, the Joint Chiefs of Staff had established the precedent that joint education should take place in joint schools. They further considered that this

precedent was in consonance with the most fundamental conclusion of the panel -- the joint specialty officer must be educated in a joint school.

Joint schools as defined by the Skelton Panel are those schools which have a curriculum that focuses on joint matters, a faculty which represents each military department equally, a student body which represents each military department equally, and are under the control of the Chairman of the Joint Chiefs of Staff.[16] Currently, only the National War College, the Industrial College of the Armed Forces, and the Armed Forces Staff College meet these standards.

Of the thirty-five recommendations, five are key recommendations that were listed in the Executive Summary of the panel report and must be considered in this monograph.

The first key recommendation of the Skelton Panel was the establishment of an educational framework which would cause each succeeding level of education to build upon the preceding level and which would tie together the curricula at the joint and Service schools.[17] The most important aspect of the framework is the emphasis to be placed on Joint Operational Art at the intermediate joint school.

The second key recommendation is a two-phase process for providing joint education. The first phase would be taught at the four Service command and staff colleges as an imbedded portion of the core curriculum. The second phase would be a shorter duration program that would build upon the first and would concentrate on deployment and employment of joint forces.[18]

The third key recommendation provides a conceptual structure for developing a premier academic institution. In it, the panel recommended forming a National Center for Strategic Studies to generate original military thought on strategy and to educate students, faculty, and researchers who could then refine the concepts developed there.[19]

The fourth key recommendation, like the third, concerns senior military education. In it, the panel recommends a greater concentration on national military strategy. The panel concluded that too much emphasis is being placed on theater level operations in all but the Navy's senior school. Since the National Center for Strategic Studies would provide the focus on national security strategy and since the intermediate level schools were providing increased emphasis on the operational level of war, there would be less need for the senior level schools to concentrate on either area. The panel bases a part of this recommendation on the assumption that there would be graduates of "adequate operational art programs" who would eventually matriculate at the senior level and would already be versed in operational art.[20] Whether or not there are adequate operational art programs is an issue that will be addressed in detail later in this monograph.

The fifth key recommendation made by the panel addresses the necessity for academic rigor in professional military education, especially at the intermediate and senior levels. The panel concluded that students should be required to write frequent essay type examinations as well as papers or reports for thorough reviewing, critiquing, and grading by the faculty. The panel focused on writing and evaluation as the essential elements of graduate-level education. To the panel, writing requires students to organize their thoughts and become actively involved in learning.[21]

The Skelton Panel went into unusual depth in preparing its report. Clearly, the report translates the sketchy guidelines of the Goldwater-Nichols Act of 1986 into well-researched recommendations which have the intent of improving professional military education in general and joint professional military education in particular. The findings of the panel have had the greatest impact on changing professional military education. Further, they form the basis of a conceptual structure for analyzing any program which claims to educate,

train, and develop operational artists. The Skelton panel was not the only body to examine military education in search of a new direction for evolution.

The Senior Military Schools Review Board, also known as the Dougherty Board,[22] conducted an independent review of intermediate and senior level professional military education programs with a specific focus on joint matters. In May, 1897 it made 11 recommendations to the Chairman of the Joint Chiefs of Staff to enhance jointness in intermediate and senior schools. The Dougherty Board operated under the impression that Congress perceived the Department of Defense as being less than forthcoming in the area of creating joint perspectives in military officers. They opined that many would be skeptical about the ability of the Services to achieve the education provisions of the Goldwater-Nichols Act because the Services were perceived as being fraught with parochialism.[23] The board corresponded with the Commanders in Chief (CINCs) and found unanimous agreement that joint education should begin at the intermediate level. They further concluded that the intermediate level should be the level of concentration to provide an officer with a thorough grounding in joint matters.

Although the Dougherty Board was mostly concerned with getting Service schools in line with the joint education requirements of the Goldwater-Nichols Act it cautioned against falling into the trap of providing joint "training" vice joint "education" at the intermediate level. The board seemed very concerned with ensuring that joint education stayed integrated with Service education to avoid the perception that joint officers were somehow different or elite. The board did not feel that a separate short course for Joint Specialty Officers would be effective because it would tend to emphasize processes and procedures which would be very perishable or which would be redundant to Service school joint instruction. The Dougherty Board clearly believed that the military education system should

retain the Service orientation found in each school, rather than recklessly pursue a joint curriculum at the expense of the Services.

Essentially, the Dougherty Board reflected a military interpretation of the education requirements set forth in the Goldwater-Nichols Act. Still, it made several findings consistent with those of the Skelton Panel. Most notably, it recognized the importance of academic rigor, though it did not believe that grades were necessary to achieve the appropriate degree of rigor. Also worthy of note is the Dougherty Board's recognition of the educational value of war games. The board differed with the Skelton Panel report in such areas as the student body population mix which would be necessary to achieve an acceptable level of joint representation. The Dougherty Board concluded that fewer joint service students were required and that the Service orientation of the school should be preserved. This somewhat regressive approach to improving joint education is reminiscent of the kind of action that caused the enactment of the Goldwater-Nichols Act.

An example of a more progressive approach to professional military education is the final report of the National Defense University Transition Planning Committee, also known as the Long Committee.[24] As its title indicates, the committee focused on changes to the National Defense University. Admiral William Crowe, then Chairman of the Joint Chiefs of Staff, commissioned the committee on March 24, 1989 (ten days before the Skelton Panel transmitted its report to the Chairman of the House Armed Services Committee) to examine the feasibility of establishing a National Center for Strategic Studies and to make comments or recommendations for improving the National Defense University, the National War College, and the Industrial College of the Armed Forces. The idea of a National Center for Strategic Studies stemmed from the testimony of Admiral Crowe before the Skelton Panel and received considerable exposure in the Skelton Panel Report.[25] The purpose of the center and the institutes which

would comprise it were Admiral Crowe's vision. The academic ethos for the proposed center as envisioned by the Long Committee is very instructive for anyone considering the design of a first-class institution. In the committee's opinion,

> "Students must receive a thorough grounding in how to think about strategy in its complex and interactive forms and must not lose sight of the historical context within which it exists. The emphasis throughout the University should be on innovative thought; there must be no simple easy answers, no facile solutions, and no automatic endorsement of the status quo."[26]

The committee clearly envisioned something that was an evolutionary step beyond the existing professional military education system.

The committee sought the advice of prominent persons in the strategy arena. One of these was General Colin Powell, then serving as Commander - in - Chief, US Forces Command. General Powell expressed his concept of the desired character of the National Center for Strategic Studies. The concept included remarks on the nature of the faculty, the use of the center's graduates, and the kind of academic rigor that would be most effective. To General Powell, the faculty should include "mavericks" who could challenge existing thoughts and intellectually stimulate the students. Additionally, the institution would not need to feel an obligation to apologize for being elite. He recognized that the true value of the institution would be measured over time. For that reason, the school's output -- the graduates -- would need to be managed into assignments which would best utilize their education. General Powell expressed a belief that academic rigor would naturally exist as an outgrowth of peer pressure and self-motivation. The emphasis of the education, to him, should be on innovative thought which challenged existing assumption rather than on grades and tests which might tend to promote "school solutions."[27] General Andrew J. Goodpaster, USA (Ret.), a former Commandant of the National War College,

Adviser to the President, Superintendent of the United States Military Academy, and Supreme Allied Commander, Europe, appeared before the committee and provided a similar description of academic rigor. To General Goodpaster, effectiveness and high quality intellectual activity required evaluations, not grading. The evaluations assess how well the students could motivate themselves after the institution "let them loose" to pursue their own directions.[28]

One final report requires mentioning. The House Armed Services Committee requested, as part of the FY 85 Defense Authorization Bill, that the Secretary of Defense study eight issues concerning the improvement of joint staff officers. The Assistant Secretary of Defense (Manpower, Installations and Logistics) or ASD (MI&L) undertook the study and submitted the Report on the Study to Improve the Capabilities of Officers in Joint Activities. The fifth and sixth issues have bearing on this monograph.

The fifth issue involved institutionalizing joint planning and operations as a more significant part of Service staff college curricula. The sixth issue involved assigning officers to command and staff colleges of other Services. Both of these issues were raised with the intent of increasing the general level of jointness in the officer corps.[29] The FY 85 Defense Authorization Act preceded the Goldwater-Nichols Act in making statutory changes in the personnel management practices of the military.[30]

An analysis of the preceding reports reveals some key themes to be kept in mind when considering the future of professional military education. The most easily recognized theme is the view that officers must be educated on joint matters throughout their career with the fundamental learning taking place in the intermediate level school of the professional military education system. Next, improvements in joint operations are possible only when the professional military education system is rigorous enough to achieve a deeper understanding of joint

military art. Ideally, professional military education schools would have the characteristics of the National Center for Strategic Studies as conceived by Admiral Crowe and seconded by the Skelton Panel and the Long Committee both. Finally, the education would provide for the linkage between the competent Service officer and the competent joint officer.

PART III.

Meeting the Need -- The Current Situation

The current professional military education system reflects many of the recommendations put forth by the panels, reports, committees, studies, and commissions already addressed. The centerpiece of the system is CM 344-90, the Military Education Policy Document (MEPD) dated 1 May 1990. This document is a joint document, approved by the Chairman of the Joint Chiefs, with the purpose of coordinating military education for the Armed Forces. It is a very detailed document, and, by virtue of the educational responsibility given to the Chairman by Goldwater-Nichols, it is the standard against which all military education programs must be measured. The document focuses on military education from the intermediate level through the general and flag officer level. It is designed to prescribe the policies necessary to achieve the congressional goal of producing strategic thinkers and warfighters who can effectively wield the military instrument in support of national strategy.[31]

According to the MEPD, the professional military education system has four products. First, the system produces officers educated for a specialty in the military profession. Second, it produces jointly educated officers who can work effectively with other Services and agencies to formulate national security strategy and national military strategy then implement them both through the

integrated employment of sea, air, and land forces. Third, the system produces strategic thinkers. Fourth and finally, the system produces senior officers who can integrate national military strategy considerations with national security strategy to ensure effective employment of armed forces.[32]

The framework for professional military education contained in the MEPD[33] shows that intermediate education occurs at four Service institutions -- the command and staff colleges (including their non-resident versions), and one joint institution -- the Armed Forces Staff College. The focus of the intermediate level is on large unit warfighting within the context of operational art. Students should gain a better understanding of tactical employment of joint forces and then blend that understanding with joint as well as Service perspectives of theater level warfare.[34]

Joint professional military education at the intermediate level is divided into two phases. Phase I is an imbedded portion of the curricula taught by the Service command and staff colleges. The instruction focuses joint operations from a Service headquarters perspective or as a component of a joint command. The curriculum includes joint forces and the operational level of war, joint organizations and command relationships, joint command, control, communications and intelligence (C^3I), and defense planning systems. Phase II occurs only at the Armed Forces Staff College. This phase examines joint operations from the perspective of a joint task force, a unified command, or the Joint Staff. The focus is on joint staff operations and further develops in the student a joint perspective. It is a joint specific curriculum which builds on the knowledge gained in Phase I and raises it to the application level.[35] The curriculum also addresses joint staff operations in detail.[36]

There seems to be an inconsistency between the theoretical product of intermediate professional military education and curricula which make the

product. The MEPD claims that the final product of professional military education is a group of senior officers who can integrate national military strategy considerations with national security strategy to ensure effective employment of armed forces. It is logical to assume that these senior officers would, at some earlier time in their careers, have been educated in the effective employment of armed forces at the operational level. According to the MEPD, the intermediate level produces officers who understand theater level warfighting within the context of operational art; an inherently joint undertaking. Yet, the intermediate level educational curricula focus on integrating joint forces at the tactical level, understanding joint concepts, using various planning systems, and the operations of a joint staff -- not on effective employment of joint forces at the operational level of war.

The very structure of the framework for military education set forth in the MEPD indicates that the Service command and staff colleges do not cover joint operations in sufficient detail to completely achieve the intermediate level goals. This is reflected in the two-phased approach to joint education, and it is the reason for existence of the Armed Forces Staff College. But since the Armed Forces Staff College, as one of the intermediate level schools, does not focus on employing joint forces at the operational level, nothing else shown in the framework does.

There are three other intermediate level professional military education schools which build on the Service oriented instruction and the Phase I joint curriculum taught in the Service command and staff colleges. All three are oriented on the operational level of war, but the MEPD completely excludes them from discussion. Nevertheless, they come closer to meeting the intermediate level education goal than the better known command and staff colleges of which they are a part. The three schools are the Army's School of Advanced Military Studies

(SAMS), the Marine Corps' School of Advanced Warfighting (SAW), and the Air Force's School of Advanced Airpower Studies (SAAS). Describing these three schools, and then comparing them with each other and the Armed Forces Staff College reveals just how close the current professional military education system comes to developing officers who are educated to effectively employ joint forces at the operational level of war.

SAMS reflected the first effort to provide advanced education for professional officers in the art of war. The two key programs in SAMS are the Advanced Military Studies Program and the Advanced Operational Studies Fellowship. The former is an intermediate level program which focuses on the tactical and operational levels of war. The latter is a senior level program which focuses on the operational and strategic levels of war. Both courses are designed to produce officers who are educated in the operational art of war as planners and practitioners. The school has been in existence since 1983 and its graduates have earned a reputation for excellence in planning military operations.[37]

The intermediate level course has five major components which are entitled: Theoretical Foundations; Tactical Dynamics; Contemporary Practice of Operational Art; Historical Practice of Operational Art; and Preparing for War. In the first component, students are exposed to a broad variety of theories concerning the nature of war, the practice of war, the causes of war, and a small amount of political science. The second component entails a detailed study of the dynamics of tactical warfare from battalion level to corps level. The third component provides the student with a practical understanding of operational art. It includes exercises, case studies, and discussions with actual practitioners. The fourth component is interwoven with the third to provide the student a historical basis for understanding operational art. The fifth component requires the student to

synthesize the lessons from the other four components into a vision of warfare in the future.

The methodology used is a combined approach consisting of seminar discussions, practical exercises, extensive reading and reflection, special lectures by subject matter experts, independent research and writing, and travel to reinforce academic learning. The course is accredited for conferring a Masters Degree in Military Art and Science.

The student population numbers around fifty each year, four to six of which come from other Services. There is a selective process for admission which includes voluntary application, a written examination, interviews, screening by career managers, and presentation to a selection board.[38] The current class (91-92) has fifty-two students which are divided into four seminars of thirteen students. Forty-six of the students are Army officers, three are Marine Corps officers, two are Air Force officers, and one is a Naval officer. Thus, two seminars have two sister Service officers and the other two have one sister Service officer.

Students have many opportunities for evaluation including daily observation of their classroom participation, writing requirements throughout the course, numerous oral presentations, the performance as a member of a staff in practical exercises, two publication quality monographs, and a four hour oral comprehensive examination. A significant amount of informal evaluation is provided by other intermediate level students and senior level fellowship students as well.

After graduating from SAMS, Army officers are assigned to staff duty with an Army division or corps. Officers from other Services are assigned based on their respective Service policies.

The Marine Corps' School of Advanced Warfighting held its first classes in 1990. It is similar to SAMS in that it provides graduates of the Marine Corps Command & Staff College with a second year of focused education in warfighting. The school was designed to "provide the nation with leaders who can shape the Marine Corps to meet the needs of the future."[39] Further, the intent of the school is to provide the Marine Corps with officers who are specially educated in the capabilities, limitations, and requirements of United States military institutions and can apply that knowledge to improve the warfighting capabilities of the nation's armed forces.[40] The focus is on doctrine as the key to military operations. The school's product is an officer who is educated to shape doctrine for successful military operations.

With doctrine as the thread of continuity, the course has three major components which are entitled - Foundations of Warfighting; Contemporary Institutions and the Preparation for War; Future Warfighting. The first component uses a series of case studies to explore the complex relationship between the nature of institutions and the demands of battle.[41] The second component focuses on the current American governmental system to teach the student how to operate "intelligently" within it.[42] In the third component, students consider a key assumption underlying current military structure and think through the implications of a given change to that assumption.[43]

The methodology used is similar to that used by SAMS. SAW uses the small seminar for discussions. It has operational planning problems associated with most of the classes. Classroom preparation involves extensive reading and reflection. Lectures by subject matter experts supplement seminar discussions. Students are required to conduct individual research and writing. Finally, the course involves travel to enhance the study of three historical campaigns.[44]

The student population numbers around twenty each year, of which six to eight will be from a Service other than the Marine Corps. There is a selective process for acceptance into the course, involving voluntary application, screening by career managers, and final selection by the Marine Corps Command and Staff College. The desired student has a strong military file and has generally outperformed most of his or her contemporaries in the command and staff college.[45] The current class (91-92) has twenty students which form one seminar. Twelve of the students are Marine Corps officers, two are Army officers, two are Air Force officers, two are Naval officers, and two are from allied nations (Canada and Australia).[46]

Upon graduation from SAW, Marine Corps graduates generally are assigned to staff duty in Marine Divisions, Marine Air Wings, or Marine Expeditionary Forces. Graduates from other Services are assigned based on their respective Service policies.[47]

The United States Air Force School of Advanced Airpower Studies held its first classes in 1991. Like SAMS and SAW, it provides resident command and staff college graduates with a second year of focused professional military education which will develop officers who can conceptualize airpower now and into the future. Since airpower in general and airpower theory are still in a somewhat nascent state when compared to general military or maritime theory, a desirable by-product of the SAAS is the genesis of airpower strategists and thinkers who will deepen the understanding of airpower.

SAAS has as its major theme "the development of the theory, doctrine, and application of airpower focused at the operational level of war."[48] It has seven supporting themes which serve as pillars to support the major theme. The seven pillars form the philosophical structure for the program. Each focuses the study into particular areas such as the human dimension of airpower or the

application of airpower across the operational continuum. A key ingredient in each of the pillars, as well as in the major theme, is the focus on airpower.

Beyond the seven pillars of the philosophical structure, the school curriculum itself consists of seven major courses which are entitled Advanced Military History, Foundations of Military Theory, Historical Application of Airpower, Strategic Applications of Aerospace Power, Operational Application of Airpower, Analysis for Military Decisions, and Applied Airpower Research.[49] The curriculum is centered on the theater level with some involvement in strategic issues and national military strategy. The clear focus of the curriculum is on the employment of airpower, but it is a broad and comprehensive view of airpower in general, not just U.S. Air Force airpower.[50]

SAAS uses a methodology similar to those used at SAMS and SAW although there is considerably less practical work. The instruction occurs at the graduate level with roughly ninety percent of the education occurring in seminar discussions. There is extensive reading and time for reflection. Subject matter experts occasionally provide guest lectures. The course length is 209 days which includes forty-eight days dedicated to research for the purpose of writing scholarly works that are worthy of publication. Additionally, each course has written requirements and oral presentations. There is one practical exercise, the Airpower Exercise, which lasts for ten days and serves as the course capstone exercise. Eventually, SAAS will confer a Master of Airpower Studies degree upon its graduates. This masters program is currently lacking congressional authorization and collegiate accreditation, but both are expected to occur within the next two to four years.[51]

The student population at SAAS is twenty-five students. This is the desired size of the course and is not expected to change in the near future.[52] SAAS has a selective process for accepting students which includes voluntary

application, screening by a board of colonels, and selection by a panel of general officers.[53] Unlike SAMS and SAW, SAAS currently enrolls only U.S. Air Force officers (although some are graduates of other Service resident command and staff colleges).

Upon completion of the course most of the graduates will be assigned to operations related positions within the Air Staff. A smaller number will be assigned to Air Force major commands (MAJCOMS) and perhaps one of the twenty-five will be assigned to a flying assignment.[54]

The Armed Forces Staff College is a joint professional military education institution which consists of two unique schools: the Joint and Combined Staff Officer School (JCSOS) and the Joint Command, Control, and Electronic Warfare School (JCEWS). The JCSOS will be the focus for this portion of the monograph. The purpose of this school is to complete the joint education of officers who have completed Phase I of the Joint Professional Military Education program and are assigned to a Joint Duty Assignment. This Phase II program is taught at the intermediate and senior levels. It is intended to raise the student's understanding of joint operations from the knowledge level of learning to the application level.[55] Phase II has five learning areas entitled: Joint Forces and the Operational Level of War; Organization and Command Relationships; Joint Command, Control, and Communications (C^3) and Intelligence; Defense Planning Systems; and Joint Staff Operations.

Each class is divided into fifteen staff cells of twenty students each. They begin the course by acting as members of the Joint Staff to determine interests which are subsequently translated into military strategy. The cells then act as unified command staffs to formulate an Operations Plan. Finally, the cells play the role of Joint Task Forces or Service components. As the student progresses through the twelve week course, the focus changes. There are seven distinct focus

changes which shape the curriculum. All seven changes carry the student progressively toward a war game at the end of the course.

The first focus occurs in the first week. Students are immediately thrust into crisis planning exercise called CERTAIN CHALLENGE. The exercise is intended primarily to cause the students to gain an appreciation of the capabilities of different Services in responding to a crisis and to see how the joint pieces fit together. Also it is designed to force the student away from the comfort of his or her own Service when considering force options to respond to a particular scenario.

In the second week the focus changes to methods of achieving strategic synchronization. The program includes the defense planning systems, and a case study on Guadalcanal to emphasize synchronization in an immature theater. During this period the seminars hold one-day sessions to study the strengths and weaknesses of the different Services.

In the fourth week the focus changes a third time to regional organizations and command relationships. The focus is on learning about the different unified and specified commands to include the introduction of a hypothetical command which will be used in the war game scenario. A North African case study is used to help reinforce the lessons.

During the fifth through eighth weeks the focus shifts to regional contingency planning. The students use the deliberate planning process to create an Operations Plan suited to their regional scenario. This includes a computer simulation of a time phased force deployment into Tunisia. This portion of the course uses several case studies to emphasize particular portions of the planning process.[56]

The ninth week brings the fifth change of focus. Crisis action planning is the area studied. The students take a cursory look at Low Intensity Conflict and

several case studies including Operations BLUEBAT, DESERT SHIELD, DESERT STORM, EAGLE CLAW, and URGENT FURY.

The sixth change of focus occurs in the tenth week of the course. The focus is a Joint Planning Exercise which causes the students to apply crisis action planning procedures to modify an existing Operations Plan in response to an altered scenario.

Finally, in the eleventh week, the students begin a two week war game which puts into effect the plans of the preceding weeks and synthesizes all of the foregoing instruction into a practical exercise.[57]

Throughout the course the students are kept in close contact with students from the other Services to help develop an understanding of joint cultures beyond the scope of the classroom. Additionally, the intermediate level students have interaction with the senior level students who use the same scenarios in a parallel course.

The Armed Forces Staff College curriculum has been the target of criticism from its graduates and from the unified commands which receive its graduates. One of the principal complaints has been about an apparently excessive amount of repetition between some of the Phase I programs and the twelve week Phase II program. The difference between Phase I programs is significant despite the successes of the Military Education Coordinating Conference (MECC) in establishing a common core curriculum at each school, and despite the goals established in the MEPD. This difference in Phase I programs is the primary cause of the repetition in Phase II.[58]

The Military Education Division of the J-7 Directorate, The Joint Staff, discovered some common concerns about the curriculum after visiting the unified and specified commands. The headquarters who were receiving the AFSC product felt that too much emphasis was placed on J-3, J-4, and J-5 activities.

They wanted more emphasis to be placed on forming and operating a Joint Task Force. Also, coalition warfare should have been receiving greater emphasis. These headquarters believed that the exercises and war games needed improvement. Additionally, they expressed a need for improvement in staff officer skills. Finally, the unified and specified commands recommended the addition of a specialty or elective curriculum.[59]

Comparison of Curricula

The intermediate level education programs which provide advanced education to graduates of the Service command and staff schools are currently the only programs which might possibly educate officers to effectively employ joint forces at the operational level of war. Hence, SAMS, SAW, SAAS, and Armed Forces Staff College are the specific intermediate level schools which will be compared and evaluated. Before doing this though, some criteria for comparison and evaluation are needed.

The concept for the National Center for Strategic Studies (the Long Committee preferred the term "University" to "Center") has relevance to the kind of school which would be required to educate students of operational art. This concept joined with some threads of continuity from the Skelton Panel Report, the Department of Defense internal reports, and the MEPD, help in establishing the criteria.

The student population is the first criterion for evaluation. The three Service programs all have a selective process for admission. The SAMS process is currently the most rigorous, although that may be a function of the newness of the other two programs and the associated difficulty in drawing large numbers of applicants before the course develops a reputation in the field. The Armed Forces

Staff College does not have a selective process for admission that it can control. However, because of the quality provisions of Title IV the selective process is carried out when career managers nominate an officer for a joint duty assignment.[60] The students for the three advanced studies programs all must exhibit the academic acumen required to perform in their respective courses before being accepted. The Armed Forces Staff College does not have a means of evaluating an officer's academic inclinations before the course begins. All three advanced programs have volunteers who are self-motivating. The Armed Forces Staff College will have this type of student because of the Goldwater-Nichols induced quality requirements for officers assigned to joint staffs.

Multiple Service representation is a necessary characteristic in a course devoted to study at the operational level, which is inherently joint. The student population mix may meet four different standards. The minimum mix would be the MEPD standard for Phase I courses. That is, each seminar will include a minimum of one student from each of the two non-host departments. The minimum mix standard for the Skelton Panel is slightly higher. It requires each seminar to include two students from each of the non-host departments. This the minimum mix for a non-joint school according to the Skelton Panel Report. The optimum mix would be representation according to the mix of Service billets on the Joint Duty Assignment List (colonel/captain and below). This is the same as the MEPD standard for Phase II. The maximum mix would be the Skelton Panel Standard for joint specialist education. That is, equal representation by each of the three Service departments.[61]

Applying these standards to the four schools reveals that SAAS meets none of the standards, SAMS fails the minimum standard by two Air Force officers, SAW meets the MEPD minimum standard and the Skelton Panel minimum standard, and the Armed Forces Staff College meets the optimum

standard but still falls short of the maximum.[62] In the area of student population, then, no single school represents all of the desired features. A model would have to come from a composite view of all four schools.

The second criterion for comparison is faculty composition. Students of the operational art require the kind of depth and breadth necessary to synthesize theoretical concepts, historical practice, and lessons of practical exercises with the elements of national power applied to strategy. To achieve this development, a faculty which provides depth in areas beyond military practice is essential. All of the schools require faculty augmentation from external sources to provide this kind of depth. General Powell concluded that faculties should include "mavericks" who can challenge the students and are willing to challenge the status quo assumptions as well. SAAS and SAW, having only one seminar each, are really too small to make a fair comparison. SAMS chooses four seminar leaders from approximately ten senior level fellowship students. All of the candidates for seminar leader are part of a selective population already as a result of their selection for senior level professional military education would indicate. If the SAMS Director wants to choose seminar leaders who meet General Powell's description, he has the flexibility to do so. This method of faculty selection could also be used at SAW by selecting graduates of the Art of War Studies program.[63] The current head of SAW is a graduate of this program. The Armed Forces Staff College has less flexibility in selecting its faculty since they are provided by the Services which are bound only by the requirement that at least seventy percent of the military faculty are graduates of an intermediate school.

There is a need in the faculty for stability without stagnation. This can be best achieved by mixing tenured or long-term faculty with a transitory short-term faculty. An additional benefit from the transitory faculty is the flow of recent field experience into the school and new ideas back into the field when the faculty

members are reassigned. SAMS and SAW are examples of such an arrangement. SAAS also is developing such a faculty including one of the original faculty members from SAMS as the current professor of military history.

Representation of different Services is as important in the military faculty as it is in the student population. Like the discussion surrounding the proper mix of students, there are three distinct standards which may be applied to the military faculty mix. The minimum mix is a five percent representation for each non-host department. This is the standard applied to non-joint intermediate level schools in the MEPD. An alternative minimum mix is a fifteen percent representation by each non-host department. This is the standard the Skelton Panel applies to non-joint intermediate level schools. The maximum mix is an equal representation of each department. The Skelton Panel and the MEPD agree that this is the standard for a joint school.[64] Against these mix standards the three Service schools all fall below the minimum standard. The Armed Forces Staff College operates close to the maximum standard. In summarizing the second criterion, it is clear that there is no single school which possesses all the desired faculty attributes. A model would combine the quality and balance between tenured and transient achieved at SAMS, with the Service representation found at the Armed Forces Staff College.

The third and most significant criterion is the academic program, and within the program, academic rigor is the first consideration. The characteristics which seem to be common to the various views of academic rigor are: extensive reading to provide a basis of knowledge, scholarly writing requirements, opportunities for oral arguments and presentations, and a means of evaluating student performance. The three Service advanced studies programs have heavy reading requirements. The Armed Forces Staff College has readings as well, but they are not nearly as in-depth as the readings undertaken at the Service schools.

All of the schools have written requirements that vary in their intensity. SAMS requires the student to produce two monographs representing independent research and synthesis of concepts introduced in the course. The monographs are approximately forty pages in length and fulfill a portion of the requirements for a master's degree. Additionally, written products are required intermittently throughout the course in the form of short essays or exercise observations. SAW has several written essays which require synthesis of concepts addressed in a particular block of instruction. It also requires the student to write a substantial paper which addresses a current operational issue, describes the conditions which would cause the issue to change, and finally, explains the implications of such a change on the military establishment.[65] SAAS has two major writing requirements. The first is a twenty to twenty-five page research paper oriented on subjects selected by the faculty. The second is a more substantive paper, forty to fifty pages long, and the result of independent research. The second paper should reflect a high degree of scholarship and must be defended orally. Once SAAS passes accreditation, this second research paper will fulfill a portion of the requirements for receiving a master's degree.[66] Armed Forces Staff College does not have research and writing requirements of this nature.

All four schools provide opportunities for oral arguments and presentations. SAMS and SAAS have an additional requirement of an oral comprehensive examination to conclude the course. All four courses have a means of evaluating student performance, including feedback from peers. In terms of rigor, there is a clear distinction between the Armed Forces Staff College and the Service advanced studies programs. The only significant distinctions between the Service schools are the absence of a master's degree program and oral comprehensive examination in SAW. Beyond a comparison of the characteristics of academic rigor is the comparison of the academic program itself.

All four schools focus, in general, on the operational level of war. However, the Service schools tend to dilute the view of the operational level of war by adding Service-specific areas of concentration. SAMS, for example, has a tactical dynamics course which orients on the tactical level of war. The importance of such a course is not at issue here. Rather, the concentration solely on ground tactical combat is what substantiates the claim. On the other hand, SAMS takes the broadest and deepest approach to the operational level in its exercises beyond the tactical level. SAAS is another example, in that its operational level focus is solely on the use of airpower. The Armed Forces Staff College provides a much broader view of the operational level of war.

A theoretical component is an important ingredient in a program designed to cause students to derive concepts from historical facts and apply them to modern practice. SAMS and SAAS both have courses devoted to the study of military theory. SAW exposes students to military theory only in support of certain historical lessons. The Armed Forces Staff College has no theory component. Similar to the importance of theory is the importance of history. Each of the four schools has a historical component in its curriculum. All make use of historical case studies to focus the examination of history. In the Service programs, the case study is only one of the means of historical examination. At the Armed Forces Staff College, the case study is the only means of examining history.

After examining history and developing an understanding of military theory, practical application provides a means of synthesizing both components into reality. Armed Forces Staff College spends much of the course time in practical application. SAMS and SAW also place a heavy emphasis on practical applications. SAMS uses war games and simulations extensively to achieve practical learning. These exercises carry the student from battalion level through

theater level. SAW principally uses operational planning problems to teach problem solving. SAAS has only one exercise at the end of the course that focuses on the application of airpower to achieve theater objectives. Accordingly, it places the least emphasis on practical application of operational art.

Another desirable feature of a quality professional military education institution is the use of student and faculty products as instructional materials. This demonstrates the quality of the program and has the effect of adding new ideas to the body of knowledge in the institution. SAMS currently uses many student monographs and theoretical or historical papers written by faculty members as instructional materials. This is a desired occurrence at SAAS since the body of knowledge in the area of airpower is so limited at present. The nature of the paper written by SAW students may not lend very well to the expansion of course materials. They have potential to do so if the writings are not too speculative. The Armed Forces Staff College curriculum is not designed to examine new concepts through research and writing so the likelihood of student or faculty products being integrated into the curriculum is low. One exception is AFSC Pub 1, The Joint Staff Officer's Guide, produced by the Armed Forces Staff College which is used extensively in the school and in other schools teaching joint matters.

Students of the operational level of war and operational art must have access to the key players in that arena if they are to broaden and deepen their understanding. The students must be exposed directly to the thinking of theorists, policy makers, and practitioners of operational art. SAMS provides its students with an unparalleled opportunity in this regard.[67] Some of these exposures are accomplished through a guest discussant program. Others are a function of travel undertaken to augment the classroom instruction.

Travel is another important aspect of professional development in the operational art. SAMS and SAW both conduct staff rides to historical battlefields to reinforce historical lessons and to critically analyze the conduct of operations.[68]

The most desirable environment for learning is the small seminar in which students are, in effect, required to teach each other with the help of the seminar leader. All four schools use this method. Outside of the seminar, time must be allocated for reading and reflection. This gives the students time to absorb concepts, conduct supplementary studies, and transition to the kind of synthesis that distinguishes education from training. The three Service advanced programs provide time for reading and reflection. The Skelton Panel perceived this as a problem at the Armed Forces Staff College since the curriculum focused on training officers for their next assignment.[69] It is unknown whether or not the perceived problem still persists.

As with many of the preceding criteria, there is no perfect academic program in existence which embodies all of the desirable characteristics. SAMS, with the greatest focus on operational art, forms a good conceptual basis. The ideal program would be one based on SAMS, with less Army-oriented tactical studies (or perhaps more air, sea, and amphibious tactical studies in addition to the Army tactical studies), and more depth in airpower and maritime theories.

The last criterion for comparison is the product of the school. A school that focuses on the operational level of war and produces operational artists should have utility to both the individual Services and the joint arena. Currently, the Service advanced program graduates are assigned almost exclusively within their Services. Graduates of the Armed Forces Staff College on the other hand are assigned exclusively to the joint arena. As a consequence, neither the Services nor the joint arena benefit from the products of programs beyond their own.

An additional characteristic of the product should be intensive management of assignments. Some find this idea very distasteful because it implies special treatment. From a practical standpoint, the few centrally selected officers who receive exceptional education should receive exceptional management so that the Armed Forces can reap the benefits of the educational program. To do otherwise is to discount the uniqueness of such a school. Most of the Services seem to ascribe to the need for special management. However, the exceptional management must continue beyond the initial assignment after graduation. The uniqueness of the education does not wear off after the first assignment. In fact, the first assignment generally uses the education less than subsequent assignments, because the officer advances in grade and is more likely to be assigned to the staff of an operational level headquarters. The Army and the Marine Corps assign graduates of the SAMS or SAW programs to staff duties in field units. Air Force graduates of SAMS, SAW, and SAAS are generally assigned to the Air Staff or other high level staffs, including joint staffs. The Navy does not seem to have a consistent assignment policy for Service advanced school graduates since some go to the Navy Headquarters while others go directly to leadership positions aboard ship. The assignment of Armed Forces Staff College graduates is not a valid comparison since a student must have a joint duty assignment as a prerequisite to attending.

PART IV.

Analysis and Synthesis -- Finding and Filling the Gap

Military education policies are nearly in conformity with the recommendations of the Skelton Panel and others who have examined professional military education in the wake of the Goldwater-Nichols Act of

1986. The senior level schools have a portion of the curriculum dedicated to joint matters, have more sister Service representation in the faculty and student body, and are focusing more on National Military Strategy and National Security Strategy. The intermediate level schools also have a common joint curriculum and have greater sister Service representation.

The Skelton Panel and the MEPD agree that there is a need for military education focused at the operational level of war. The operational level is inherently joint and sometimes combined, thus the education must be joint. The most fundamental conclusion of the Skelton Panel is that joint education must occur in joint schools. Although the panel intended for the AFSC to be the flagship institution for joint education, its curriculum currently does not afford the depth of education that the Services recognize as necessary to educate operational artists.

The Army, the Marine Corps, and the Air Force all have courses at the intermediate military education level, beyond their respective command and staff colleges, which orient on the operational level of war. These courses do enter the kind of depth envisioned by the Skelton Panel and others. However, all of them have, in varying degrees, a Service orientation and do not meet the requirements for being considered joint schools. Additionally, the purpose and product of each school is distinct from the others. Graduates of the Service programs have the broadest and deepest education, but they are less likely to be assigned to an operational level headquarters than are graduates of the AFSC. Unfortunately, the AFSC graduates do not have as broad or as deep an education.

Clearly, there is a gap in the professional military education system that requires filling. There is no joint intermediate level school which provides in-depth study of the operational level and the operational art of war. Thus, the joint arena is not benefiting from the kind of product the Services are currently

receiving. In other words, the linkage between the competent Service officer and the competent joint officer has not been made.

The gap in the professional military system is not a conceptual gap The framework for professional military education is sufficient right now to conceptually fill the gap. What is missing is the particular school to accomplish what the framework conceptually allows and what the Skelton Panel, as an extension of the Goldwater-Nichols Act, intended.

A Proposed Solution

In designing a school to produce officers proficient in joint operations, several considerations must be accepted as givens. First, in keeping with the fundamental conclusion of the Skelton Panel, the school must be a joint school. According to the MEPD, that means it must be under the supervision of the Chairman of the Joint Chiefs of Staff and must be fully joint in mission and orientation.[70] Second, the students must attend the school only after completing a resident or non-resident command and staff college since a thorough understanding of their Service's role in a Joint Task Force or Theater of Operations is a necessary prerequisite for achieving the correct educational focus and benefits. Additionally, completion of Joint Professional Military Education Phase I, imbedded in the command and staff college curricula, would be the point of departure for more advanced study of joint operations. With these considerations accepted, a proposed description of the school can begin.

Ideally, the school would be the nucleus of an Armed Forces Center for Operational Studies (AFCOS). Since the establishment of an AFCOS would provide a desirable environment for the school, a brief discussion of the concept behind the center is useful. Like Admiral Crowe's proposed National Center for

Strategic Studies, the AFCOS would be a fusion point for joint operational doctrine, theory, education, and free thinking. The center would consist of four institutions.

The center's first institution would be a year-long school similar in concept to the Army School of Advanced Military Studies[71] with approximately ninety students[72] of intermediate rank (major/lieutenant commander). The school would use a historical, theoretical, and doctrinal basis for the practical application of planning and executing joint operations in joint task forces and unified commands. A possible title for the school would be the Armed Forces School of Advanced Operational Studies (AFSAOS).

The center would have an institute for original thought on operational art and the operational level of war. This institute would serve as a think tank to attract scholars, government officials, and senior military leaders who could expand the currently sparse body of knowledge on these subjects.

The third institute would be a short course for providing Joint Professional Military Education Phase II instruction to the majority of the officers headed toward a joint duty assignment. This institute would provide a continuation of the functions currently being performed by the Armed Forces Staff College.

Finally, the AFCOS would have an institute for holding international seminars, symposia, war games, and workshops in operational art and for formulating joint operational doctrine.

The criteria used to analyze the SAMS, SAW, SAAS, and AFSC programs form a useful framework for presenting the AFSAOS concept. The first criterion is the student body. Each year approximately 90 command and staff college students would be selected by their Services to attend the school. The process for selection would be left much as it is currently for attendance at the three advanced programs, with the addition of an academic entrance examination to be

universally administered. This examination would not in any way substitute for the assessment of the candidate's academic abilities rendered by his or her performance in the command and staff college. Rather, it would be a specific examination designed to meet specific purposes.[73]

After refining the list of volunteer candidates to those with the best performance on the examination and with the strongest academic inclinations, the Service schools would submit the names to their Service headquarters for an assessment of each candidate's professional file. After the professional screening, the Services would select their primary and alternate students either in proportion to the Service's representation on the joint duty assignment list or on a straight one-third per Service department basis.[74] Students attending other than their own Service command and staff college would be eligible to compete for seats belonging to their Service. The lists of each Service would be submitted to the Commandant of the AFSAOS for review and final approval.

The second criterion is the faculty composition. The faculty of the AFSAOS would consist of two groups -- those who lead the student seminars and those who direct the courses. They would be short-term and long-term faculty, respectively. The seminar leaders would be the "mavericks" that General Colin Powell described in his testimony before the Long Committee. They would be the "Young Turks" of their Services, having just completed a senior level professional military education school.[75] Given the proposed student population of ninety, six leaders would be required for six seminars of fifteen students each. Three senior level joint professional military education graduates would be assigned to the faculty each year after the first year of existence. Each of the three would be from different service departments. This flow would provide for a joint faculty, a 50% turnover rate in the seminar leaders (compared to a 100% turnover at SAMS, the only advanced studies course with multiple seminars), a faculty

assignment policy that supports the provisions of the Goldwater-Nichols Act Title IV, and the kind of academic environment Admiral Crowe and General Powell envisioned for the National Center for Strategic Studies.

The other part of the faculty would consist of military and civilian personnel assigned on a longer term basis. The military personnel would be the directors of the operational portions of the curriculum. They should be Joint Specialty Officers with recent operational experience in a unified command or joint task force. The civilian portion of the faculty would consist of theorists and historians. An additional faculty member could be a Foreign Service Officer from the Department of State with field experience in assisting foreign countries with security assistance, counterterrorism, counternarcotics, counterinsurgency, or any other area in which the Departments of State and Defense must work in close harmony. Similarly, Area Studies Specialists or Political Scientists would enrich the faculty. Such a faculty would provide the kind of depth and breadth necessary for educating operational artists on the interface between policy and military action.

The third criterion is the academic program. As was the case in comparing the three advanced studies programs and the Armed Forces Staff College, rigor must be the first area of the academic program to be discussed. The kind of rigor desired is that described by Generals Powell and Goodpaster before the Long Committee. The program would require very few artificial forms of academic rigor (quizzes and tests) primarily because of the nature of the student admitted through the selection process. Rigor would come in the form of extensive reading, research to support written submissions and oral presentations, intense academic debating within the seminars, and the natural healthy competition which develops when self-motivated volunteers operate in sustained contact with one another. The students would be evaluated by critiques of their

written work, critiques and after action reviews of their actions in war games or simulations, and by the requirements associated with submitting and defending a master's thesis or an equivalent work.

There are some additional methods of creating an academically rigorous environment which leads to enhanced leader development, particularly the development of operational artists.[76] Learning exercises should involve both analysis and synthesis -- with emphasis being placed on synthesis which develops in the student the ability to integrate concepts. Student frames of reference should be challenged even though much emotion may be manifested as a result. The "maverick" seminar leaders, as well as the students themselves, will do this almost naturally. Students should be required to deal with demands that are complex, ambiguous, and uncertain. This is best achieved through exercising crisis scenarios like the scenarios in AFSC or one exercised at SAMS which placed the student in the staff of a multinational joint task force headquarters assigned to a peacemaking mission in a country rocked by ethnic violence and civil war.[77] Finally, students must be assigned collaborative tasks which cannot be accomplished successfully by one person, thus requiring the development of interpersonal skills. This becomes especially important in a school which will have an objective of developing in the students a joint perspective.

The academic program itself would focus on the operational level of war and would examine the theory and practice of operational art. The theoretical component of the program is key to developing the kind of synthesis described above. It would provide a basis for understanding the development of doctrine and would deepen and broaden the student's understanding of warfare in general. The proposed theory course would encompass classical military theory, political theory, economic theory, land warfare theory, maritime theory, airpower theory (in increasing amounts as this area evolves), and nuclear warfare theory.

The historical component of the academic program would trace two threads of continuity: the historical development of doctrine, including the factors that cause doctrine to evolve or to be wrong; and the historical development of operational art, including the campaigns which reflect its evolution. Case studies would be used throughout the historical course for the purpose of developing the student's ability to conduct the kind of critical analysis that Carl von Clausewitz suggests for closing the gap between theory and reality.[78]

The program would provide for learning through practical application by making extensive use of war games, simulations and exercises to reinforce learning objectives. With the school subordinate to the Chairman of the Joint Chiefs of Staff, the Joint Staff could assist in scenario development. Similarly, the school could help analyze existing Operations Plans and Concept Plans -- sanitized for student use, of course. Most of the exercises would occur at the Service component level and higher, up to the theater level. Some exercises could be conducted at the tactical level to help the students better understand the tactical synchronization of joint assets.

Since the school would ideally be a haven for free thinking about the operational level of war, many of the written products of students and faculty members would be used to expand the body of knowledge inside and outside the institution. Articles and papers could be submitted to professional publications like the Armed Forces Journal and the Journal of the Royal United Services Institute for Defence Studies or Service publications which encompass the strategic and operational levels of war. Publication would not only expand the body of knowledge but also advertise the nature of joint professional military education in the United States Armed Forces.

A guest speaker program would be a vital ingredient to the program to deepen the student's understanding of the concepts being discussed in the

seminars. Exposing the students to policy makers as well as operational art practitioners, planners, and theorists would give the students a chance to engage in direct discussion with those who shape the nature of warfare. Conversely, exposing the guest speakers to the students would have the effect of advertising to the guest speakers the quality of their successors.

Travel in limited proportions would also be a useful supplement to the education which occurs in the classroom. Visits to unified and specified commands or standing joint task forces, as well as staff rides to reinforce lessons in the historical evolution of operational art would be the focuses of any travel.

The school would also be accredited to confer graduate level degrees at the conclusion of the course of instruction. This implies that as a minimum, part of the course load would involve time for reading and reflection, written theses or monographs resulting from individual research, and an oral comprehensive examination which includes a thesis defense.

The investment in such a school would be high, but, as General Powell suggested, the true value of the institution would be measured over time by the contributions of its graduates. The assignment of the graduates would, of necessity, be specially managed to ensure that the Services were making best use of the school's product. All of the graduates would be certified as having completed Joint Professional Military Education Phase II since the course thoroughly meets the requirements for such a certification. In keeping within the provisions of Title IV, a minimum of fifty percent of the graduating class would report directly to joint duty assignments.

Random assignments to any job on the Joint Duty Assignment List would not be an example of effective management. Rather, a minimum of ninety positions would need to be identified which would be best filled by a graduate of the school. The positions would be coded to require AFSAOS graduates. Most of

these positions would relate to planning, operations, logistics, and intelligence. By having a minimum of ninety such positions, forty-five graduates per year would be assigned to two-year tours, thus establishing a steady state flow with no "gapping"[79] by the third year of the school's existence. Also, the Services would continue to gain an immediate benefit from graduates who do not report directly to joint duty assignments.

Recognizing that the standard joint tour length is three years, not two, a heavy use of the critical occupational specialty waiver would be necessary. Such a policy would not be to circumvent the provisions of Title IV. In fact, if correct management occurs over the length of the graduate's career there would be repeated assignments to joint duty positions. The joint arena would hardly be short-changed in the long run.

The AFSAOS would have to be accredited according to the Process for Accreditation of Joint Education (PAJE). The process has standards and common criteria which reflect the characteristics the Chairman of the Joint Chiefs of Staff considers to be indicators of a satisfactory program for joint education. There are eight criteria, each supported by a standard and rationale.[80] For the purposes of this monograph, they can be summarized as focusing on the curriculum, the faculty, and the academic environment. They are very similar to the criteria used in this monograph for evaluating professional military education programs. If the AFSAOS were designed according to the proposed concept, meeting accreditation would require little or no modification.

Implementing such a concept as this will create a number of challenges in overcoming current Service views on military education. Some issues that would have to be addressed are immediately apparent and can only be briefly addressed here. The first issue would be the fate of the Service advanced military studies programs now in existence. Ideally, the Service oriented programs would be

retained since a joint school of the same duration would, of necessity, not be able to enter into the same kind of depth in certain specific areas like tactical employment. Unfortunately, in times of reducing defense budgets, the ideal solution is a very unlikely one. An alternative solution would be a significant reduction in the size of the student bodies in each Service advanced studies program to approximately 15 students. Perhaps a more realistic solution is the elimination of these courses altogether to mark a clear evolution in the professional military education system. To fill the void created, the Service command and staff schools would need to concentrate more on the areas not covered by the joint school. This may very well mean discarding some portions of the current command and staff college curricula.

The second issue addresses the reasons why all Joint Specialty Officers should not attend the AFSAOS. This is not desirable for numerical and conceptual reasons. Numerically, the school could not produce graduates fast enough to fill the 3,149 positions on the Joint Duty Assignment List which call for majors.[81] Even if the number of positions to be filled each year was only one third of the total amount, the school would be unable to meet the necessary production rate.[82] If the functions of the current AFSC are retained in the proposed National Center for Operational Studies, the year-long school would simply augment the current number of officers trained each year for joint staff assignments. Conceptually, the school would lose its selective, elite status if all officers being assigned to joint duty assignments passed through the program. The idea of an elite school will cause objection in some circles, but such a focused program of instruction designed to challenge an individually selected group of volunteer students is by definition elite. This can be a desirable view of the school as long as elite does not become synonymous with arrogant or detached.

As General Powell remarked when discussing the National Center for Strategic Studies, there should be no need for the school to apologize for being elite.

PART V.

Conclusions and Implications

The Goldwater-Nichols Defense Reorganization Act of 1986 clearly codified a solution to many of the issues that required reform in the Department of Defense. The law mandated changes which seemed significantly different, but which were actually consistent with the lessons of history from World War II to the time of enactment. The joint operational successes of Operations JUST CAUSE, DESERT SHIELD, and DESERT STORM seem to confirm that the Act was both timely and correct. The provisions of the act were not in opposition to the direction toward which the military was heading, albeit sluggishly. The possible exception would be the provisions of Title IV which did mark a radical departure in the management of officers.

A key portion of Title IV pertains to professional military education. The Skelton Panel on Military Education reflected an unusual effort to add practical flesh to the concept provided in Title IV. The panel report included many recommendations which have taken effect or will take effect in the professional military education system. The military has an established framework for professional military education that is quite clearly descended from the framework proposed by the Skelton Panel. Nevertheless, the current framework is missing a key ingredient which will keep the military from meeting the Goldwater-Nichols intent of improving the performance of officers in joint military operations.

The missing ingredient is a joint intermediate level school which provides in-depth study of the operational art of war. The Army School of Advanced

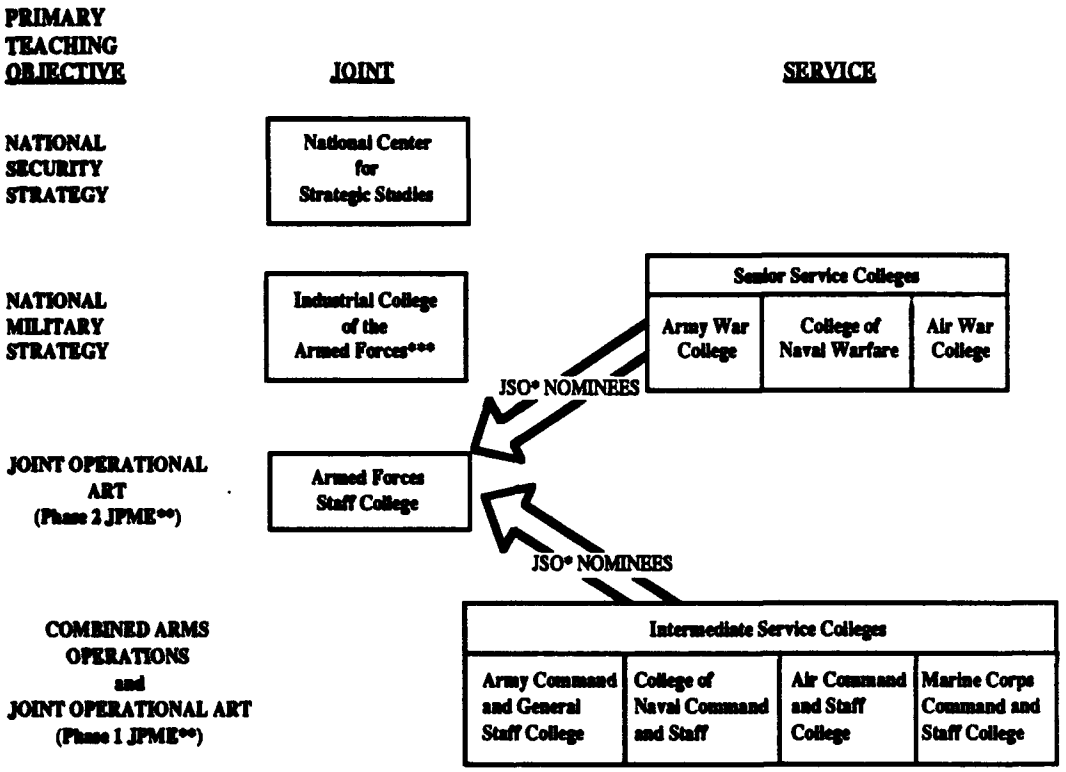
Military Studies, the Marine Corps School of Advanced Warfighting, and the Air Force School of Advanced Airpower Studies provide the depth of study required to fill in the missing piece, but they all have a dominant Service perspective and fulfill Service specific needs. The Armed Forces Staff College provides the joint environment, but, in focusing more on joint staff operations than joint operations, it lacks the breadth and depth required to provide the missing link. The solution would be a joint school modeled after the different Service advanced studies programs.

Implementation of this solution is well within reach, but would require a recognition of the current gap in the professional military education system, an investment by each of the Services, and a commitment by the Chairman of the Joint Chiefs of Staff. Additionally, it would require a Congressional acknowledgment of the importance of such an institution through appropriations, if required, and through legislation designed to attract prominent theorists, historians, and scholars to the faculty. This is a natural evolution for the Armed Forces. Accordingly, legislation is needed not to force a change in the PME system (as the Goldwater-Nichols Act did), but to assist a change in progress.

The changing nature of war requires institutions to adapt. Joint warfare is the norm. Over the long term, education becomes the means of making the adaptation. As Confucius said, "If you plan for one year -- plant rice; for ten years, plant trees; for a hundred years, educate men."[83] It is to education that the Armed Forces must turn, for knowledge is the key to developing operational artists who are comfortable with joint concepts and can apply operational art in the employment of joint forces.

Appendix A

Recommended Framework for Military Education[84]

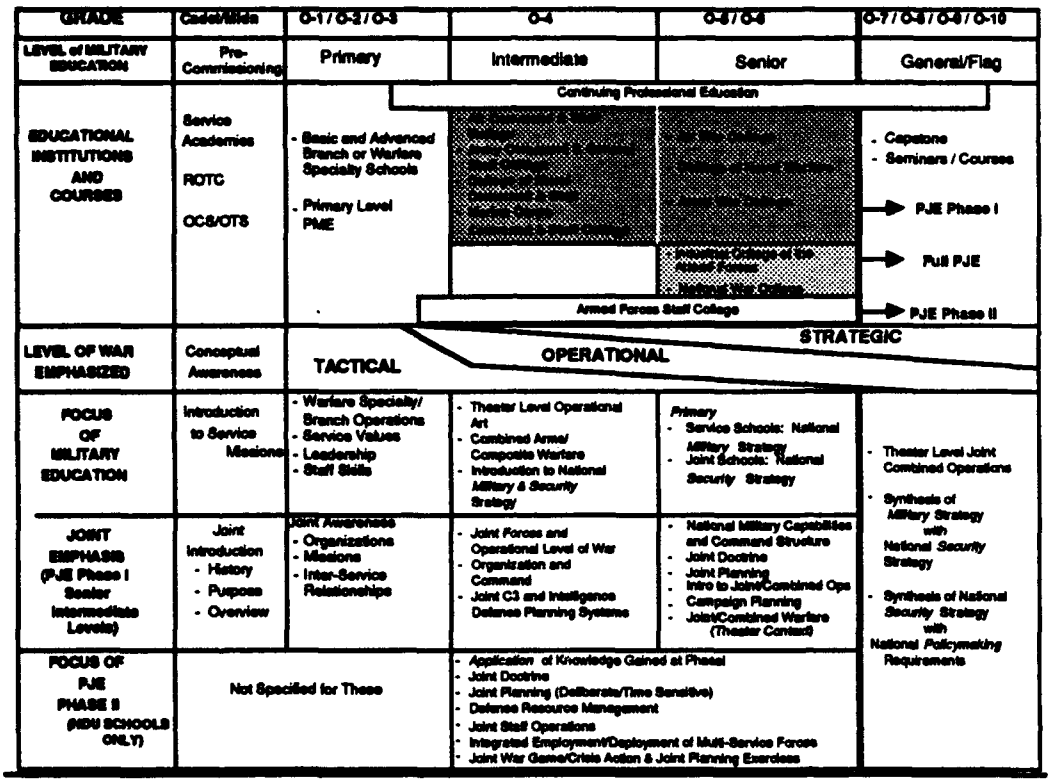


*JSO = Joint Specialty Officer **JPME = Joint Professional Military Education

***ICAF is at the same level as the Senior Service Colleges; its primary teaching objective is in the mobilization area.

Appendix B

MEPD Framework for Professional Education[85]



Appendix C

Education Taxonomies[86]

Bloom's taxonomy for learning in the cognitive domain

Level of Learning	State of Mind
Evaluation	Value Judgments
⇧	
Synthesis	Creation of new structures and relationships
⇧	
Analysis	Understanding of organizational structure and interrelationships
⇧	
Application	Use of learned materials in specific instances
⇧	
Comprehension	Understanding; translation, interpretation, extrapolation
⇧	
Knowledge	Recall and recognition

Kratwohl's taxonomy for learning in the affective domain

Level of Learning	State of Mind
Characterizing	Interpreting values into lifestyle
⇧	
Organizing	Comparing, relating, synthesizing values into ones own system
⇧	
Valuing	Accepting a value for its perceived worth; appreciation
⇧	
Responding	Complying, acting willingly
⇧	
Receiving	Being aware; attending willingly or selectively

Appendix D

Mix Standards for Professional Military Education Programs

SAMS	CLASS SIZE	ARMY	NAVAL (Marine)	AIR FORCE	OTHER
Current Mix	52	46	4 (3)	2	
MEPD Minimum	52	44	4	4	
Skelton Minimum	52	36	8	8	
JDAL Mix*	52	19	14 (3)	19	
Skelton JSO Mix	52	17	17	17	
SAW	**CLASS SIZE**	**ARMY**	**NAVAL (Marine)**	**AIR FORCE**	**OTHER**
Current Mix	20	2	14 (12)	2	2
MEPD Minimum	20	1	18	1	
Skelton Minimum	20	2	16	2	
JDAL Mix*	20	7	5 (1)	7	
Skelton JSO Mix	20	7	7	7	
SAAS	**CLASS SIZE**	**ARMY**	**NAVAL (Marine)**	**AIR FORCE**	**OTHER**
Current Mix	25			25	
MEPD Minimum	25	1	1	23	
Skelton Minimum	25	2	2	21	
JDAL Mix*	25	9	6 (1)	9	
Skelton JSO Mix	25	8	8	8	
AFSC	**CLASS SIZE**	**ARMY**	**NAVAL (Marine)**	**AIR FORCE**	**OTHER**
Current Mix	300	111	78	111	
JDAL Mix*	300	111	78 (15)	111	
Skelton JSO Mix	300	100	100	100	

*JDAL percentages are Army 37%, Naval 26% (Marine 5%), and Air Force 37%

Appendix E

Process for Accreditation of Joint Education (PAJE): criteria and standards

The listed criteria and standards apply to any educational institution which implements a Program for Joint Professional Military Education (PJE) intended to qualify or contribute to the qualification of Joint Specialty Officers (JSO). The criteria reflect what the Chairman of the Joint Chiefs of Staff considers to be characteristic of satisfactory joint education programs.[87]

1. **Criterion**: Fulfillment of the Chairman's stated fundamental and common objectives for military education.

Standard: Under the guidelines embodied in the military education framework and the MEPD, the PAJE team will assess the extent to which each institution prepares graduates to operate in a joint environment at appropriate levels of war and to generate quality tactical, operational, and strategic thought from a joint perspective.

2. **Criterion**: Dedication to PJE objectives and standards.

Standard: All schools involved in equivalent levels of PJE have a common set of specified learning objectives. The institution's mission, goals, and objectives should reflect joint educational requirements in suitable terms. Specific course objectives should be stated and should include the development of joint awareness or attitudes.

3. **Criterion**: Curriculum should focus on appropriate areas of joint emphasis and clearly integrate PJE goals and learning objectives, the means of achieving goals and objectives, and prescribed seminar and student-faculty mixes throughout.

Standard: Instructional methods should be appropriate to the subject matter, level of learning, and domain of learning. Maximum effort should be made to stimulate student participation in the educational process. A measure of success in this area is the degree to which the school instills joint attitudes and joint perspectives in their students while building upon an individual's Service expertise.

4. **Criterion**: An atmosphere of instruction and learning conducive to academic excellence.

Standard: Active involvement of students in the learning process promotes retention, deeper comprehension, and development of professional attitudes. Passive learning alone does not serve to attain PJE goals; therefore, maximum student involvement in learning should be encouraged. Methodologies should be appropriate for the domain and desired levels of learning. Additionally, faculty should be subject matter experts and have the ability to employ instructional strategies that ensure a high quality learning experience. Courses

should be planned and conducted so motivation for learning is threaded throughout all lessons.

5. **Criterion**: A program of evaluation that measures student achievement.

Standard: There should be a demonstrable relationship between an institution's stated PJE goals and objectives and the actual learning outcomes achieved by the students. Basic questions that need to be answered concerning evaluation of learning outcomes include:

a. Are the goals and objectives clearly stated, attainable, and measurable?

b. Are the evaluation devices appropriate for measuring the desired levels of learning?

c. Does each measure relate directly to planned learning outcomes?

d. Does the evaluation program differentiate among the levels of student achievement?

6. **Criterion**: Evaluation of curriculum and instruction that measures achievement of goals and objectives.

Standard: Institutions should ensure their PJE instruction supports the needs of the field. As an option, institutions should conduct surveys of graduates and their supervisors to determine curriculum and instructional effectiveness. Results of these analyses may be used by the faculty to develop curriculums [sic] and courses relevant to the requirements of the field.

7. **Criterion**: Assignment of faculty with appropriate qualifications and experience in joint matters and excellent teaching abilities.

Standard: The institution should conduct a program for recruitment, selection, and assignment of high quality faculty who have the academic credentials, effective teaching skills, and experience in joint matters commensurate with the level and phase of PJE taught at the particular institution. The roles and responsibilities of the faculty should be clearly documented. The faculty should be professionally prepared and committed to joint education. Faculty effectiveness is a critical determinant in every phase of the instructional program; therefore, performance criteria and standards should be clearly defined and faculty should be held accountable for its performance.

8. **Criterion**: Faculty development programs for improving instructional skills and increasing subject matter mastery.

Standard: Each institution should have a faculty development program that encompasses pedagogy and areas of expertise. Institutions should have on-going programs to help the faculty refine teaching skills, maintain currency in subject areas, and improve all aspects of instructional methods. Policy and manning should provide for research and publication by faculty members.

Appendix F

JDAL by type headquarters and grade requirement[88]

Activity	MAJ/LCDR	LTC/CDR	COL/CAPT	TOTAL
OSD	48	206	177	431
The Joint Staff	124	546	200	840
Unified Cmd	1479	1322	498	3299
Combined Cmd	65	38	12	115
NATO/Allied Cmd	444	455	163	1062
Defense Activities	607	820	477	1904
DoD Activities	29	44	29	102
Joint Activities	147	128	76	351
Outside DoD	16	40	28	84
JMA*	139	75	47	261
Cross Department	51	70	27	148
General/Flag				280
TOTAL	**3149**	**3744**	**1734**	**8907**

*JMA = Jointly Manned Activity. A JMA is an organizational activity or element chartered by the Secretary of Defense or the Chairman of the Joint Chiefs of Staff. It may be a single Service acting as an executive agent. It may be multi-departmental or multi-national performing a joint mission. It reports, operationally, to or through a Unified Command or the Chairman of the Joint Chiefs of Staff or the Secretary of Defense. The Joint Manning Document provides the reasonable mix of multi-department or multi-national billets.

Endnotes

[1]U.S. Congress, Representative Ike Skelton speaking on "Military Strategy, Unfocused, Unstudied, Unlearned", Congressional Record - House, 100th Cong., 1st sess., Oct 6, 1987, Vol. 133, No.155, H8235.

[2]Joint Chiefs of Staff, "Joint Pub 1", Joint Warfare of the U.S. Armed Forces, (Washington, D.C.: U.S. Government Printing Office, 11 Nov 1991), p. 2.

[3]Richard L. West, LTG, USA (Ret.), "Goldwater-Nichols Department of Defense Reorganization Act of 1986: Its Impact on the Army -- A Primer", (Arlington, Virginia: Association of the United States Army 1986), p. 2. Hereafter referred to as West, "Goldwater-Nichols -- A Primer".

[4]Public Law 253, National Security Act of 1947, 80th Cong., 1st sess., 1947.

[5]Public Law 85-599, Department of Defense Reorganization Act of 1958, 72 Stat. 514 (H.R. 12541), August 6, 1958, 85th Cong., 2d sess.

[6]U.S. Code Congressional and Administrative News 1958, President's Messages "Reorganization of the Department of Defense", special message submitted to Congress on April 3, 1958, 104th Congressional Record, 5608 (H. Doc 366), Vol. 3, p. 5432.

[7]The following references, though hardly exhaustive, provide the reader with an excellent understanding of each of the listed operations: Operation BLUEBAT -- "Not War But Like War: The American Intervention in Lebanon", Leavenworth Papers No. 3, by Roger J. Spiller, (Fort Leavenworth, Kansas: Combat Studies Institute, U.S. Army Command and General Staff College, January 1981); Operation POWER PACK -- "Power Pack: U.S. Intervention in the Dominican Republic, 1965 - 1966", Leavenworth Papers No. 15, by Lawrence A. Yates, (Fort Leavenworth, Kansas: Combat Studies Institute, U.S. Army Command and General Staff College, July 1988); Vietnam -- The Army and Vietnam, by Andrew F. Krepinevich, Jr., (Baltimore: The Johns Hopkins University Press, 1986) and Vietnam: A History, by Stanley Karnow, (New York: Penguin Books, 1984); Operation EAGLE CLAW -- "Rescue Mission Report", Special Operations Review Group, (a.k.a. The Holloway Commission Report), (Washington, D.C.: Joint Chiefs of Staff, 1980); Operation URGENT FURY -- Urgent Fury: The Battle for Grenada, by Major Mark Adkin, (Lexington, Mass.: Lexington Books, 1989). For an excellent summary of the joint planning aspects of several of these operations, see "Military Planning and Operations: The Joint Perspective", National Security Management Series, by James H. Dixon and Associates, (Washington, D.C.: National Defense University, 1985), pp. 126 - 149.

[8]The compendium The Defense Reform Debate: Issues and Analysis, Asa A. Clark, IV, Peter W. Chiarelli, Jeffrey S. McKitrick, and James W. Reed editors, (Baltimore: The Johns Hopkins University Press), is an example of the kinds of issues being debated. One of the conclusions of the book indicated the likelihood of gaining successful reform in the 1980's in the areas of procurement, force structure, and JCS reorganization to be somewhat questionable. Only in the area of doctrine did the authors expect high likelihood of success. p. 358.

[9]These positions are reflected in a series of six bi-partisan speeches delivered in open sessions of the U.S. Senate by Senators Barry Goldwater (Republican from Arizona) and Sam Nunn (Democrat from Georgia) between October 1 and October 8, 1985. See U.S. Congress, Senators Barry Goldwater and Sam Nunn speaking on "Congressional Oversight of National Defense", Congressional Record - Senate, 99th Cong., 1st sess., Oct 1, 1985, Vol. 131, No. 125, S12338 - S12343; U.S. Congress, Senators Barry Goldwater and Sam Nunn speaking on "DoD Organization -- A Historical Perspective", Congressional Record - Senate, 99th Cong., 1st sess., Oct 2, 1985, Vol. 131, No. 126, S12403 - S12407; U.S. Congress, Senators Barry Goldwater and Sam Nunn speaking on "The Joint Chiefs of Staff and the Unified Commands", Congressional Record - Senate, 99th Cong., 1st sess., Oct 3, 1985, Vol. 131, No. 127, S12533 - S12537; U.S. Congress, Senators Barry Goldwater and Sam Nunn speaking on "Office of the Secretary of Defense: Lack of A Mission Focus", Congressional Record - Senate, 99th Cong., 1st sess., Oct 4, 1985, Vol. 131, No. 128, S12594 - S12598; U.S. Congress, Senators Barry Goldwater and Sam Nunn speaking on "Dominance of the Budget Process: The Constant Quest for Dollars", Congressional Record - Senate, 99th Cong., 1st sess., Oct 7, 1985, Vol. 131, No. 131, S12776 - S12780; U.S. Congress, Senators Barry Goldwater and Sam Nunn speaking on "DoD Reorganization: Summary of the Problems", Congressional Record - Senate, 99th Cong., 1st sess., Oct 8, 1985, Vol. 131, No. 132, S12830 - S12833.

[10]Benjamin F. Schemmer, "President's Blue Ribbon Commission: 'Structural Changes Are Needed'", Armed Forces Journal International, 123 (4), (Washington, D.C.: Army and Navy Journal, Inc., Oct 1985), pp. 60 - 61.

[11]U.S. Congress, "Conference Report, House of Representatives, Sep 12, 1986, Goldwater-Nichols Department of Defense Reorganization Act of 1986, 99th Congress, 2d Session, Report #99-824, (Washington, D.C.: U.S. Government Printing Office), Sec. 668. Hereafter referred to as Goldwater-Nichols Act. West, "Goldwater-Nichols -- A Primer", p. 16.

[12]Goldwater-Nichols Act, Secs. 662, 663, 664.

[13]Ibid., Sec. 663.

[14]Panel membership included Rep. Ike Skelton (D-Mo.) as chairman, Rep. Jack Davis (R-Il.) as ranking minority member, and Reps. Solomon Ortiz (D-Tex.), George (Buddy) Darden (D-Ga.), Joseph E. Brennan (D-Maine), Owen B. Pickett (D-Va.), John G. Rowland (R-Conn.), and Jon Kyl (R-Ariz.) as remaining

members. From U.S. Congress, Report of the Panel On Military Education of the One Hundredth Congress of the Committee on Armed Services, House of Representatives, Representative Ike Skelton, Chairman, April 21, 1989, 101st Congress, 1st Session, (Washington, D.C.: U.S. Government Printing Office), p. v. Hereafter referred to as Skelton Panel Report. Congressional Yellow Book, Jodie Scheiber, Ed., Vol. XVI, No. 4 (New York: Monitor Publishing Co., Nov 1990), p. II-236.

[15]U.S. Congress, Representative Ike Skelton speaking on "The House Armed Services Committee Panel on Military Education: Focusing the Spotlight", Congressional Record - House, 100th Cong., 1st sess., Nov 19, 1987, Vol. 133, No. 186, H10648. Skelton Panel Report, p. v.

[16]Skelton Panel Report, p. 127.

[17]Appendix A shows a schematic of the framework proposed by the Skelton Panel.

[18]The first phase would concentrate on the basics of joint warfare, such as capabilities and limitations of each Service, doctrine, organizational concepts, joint command and control, joint planning processes and systems, and the role of Service components within a unified command. The second phase would provide a deeper examination of joint doctrine and would use case studies to provide a better understanding of the operational level of war. A desired benefit of the second phase would be the development of joint attitudes and perspectives through continuous exposure to other military departments in professional as well as social environments. Skelton Panel Report, p. 4, p. 105.

[19]The panel envisioned a center which comprised four institutions. First it would have a year long school with approximately 50 students of senior rank (defined as Colonel/Captain (Navy) through Major General/Rear Admiral) who are all graduates of a senior level Professional Military Education school and who could potentially serve in senior intergovernmental or multinational security assignments. Second, it would have an institute for original thought on national security strategy and national military strategy. This institute would serve as a think tank to attract scholars, government officials, and senior military leaders. Third, it would have a capstone institute for general/flag officer education. Finally, it would serve as an institute for holding seminars, symposia, and workshops in strategy for the public and private sectors alike. Skelton Panel Report, p. 5, pp. 116 - 117.

[20]Ibid., pp. 5 - 6.

[21]Ibid., p. 7, pp. 161 - 166.

[22]The membership of the Dougherty Board included GEN Russell E. Dougherty, USAF (Ret.), LtGen Philip D. Shutler, USMC (Ret.), VADM Marmaduke G. Bayne, USN (Ret.), and LTG DeWitt C. Smith, USA (Ret.). The Report of the Senior Military Schools Review Board on Recommendations to the Chairman of the Joint Chiefs of Staff Regarding Professional Military Education

in Joint Matters, Russell E. Dougherty, General, USAF (Ret), chairman (Washington, D.C., 7 May 1987), signature page. Hereafter referred to as Dougherty Board Report.

[23]Dougherty Board Report, p. ii.

[24]The membership of the Long Committee included: Admiral Robert L. J. Long, USN (Ret), Chairman; Dean Graham Allison, Vice Chairman; Dr. Jacques F. Gansler, Vice Chairman; Charles F. Baird; Robert H. B. Baldwin; James F. Gary; Leonard P. Gollobin; Lieutenant General Hansford T. Johnson, USAF, Ex Officio Member; General Thomas R. Morgan, USMC (Ret); Ambassador Seymour Weiss; General John A. Wickham, Jr., USA (Ret); and Professor Albert Wohlstetter. National Defense University Transition Planning Committee, Final Report, Robert L. J. Long, Admiral, USN (Ret), chairman (Washington, D.C., 25 August 1989), p. 22. Hereafter referred to as Long Committee Report.

[25]Long Committee Report, p. 1.

[26]Ibid., p. 36.

[27]Ibid., p. C-19.

[28]Ibid., p. C-20.

[29]Assistant Secretary of Defense (Manpower, Installations and Logistics), "Report on the Study to Improve the Capabilities of Officers in Joint Activities" (Washington, D.C.: Office of the Assistant Secretary of Defense (Manpower, Installations and Logistics) 1985), pp. 3 - 4. Hereafter referred to as ASD (MI&L) Report.

[30]The study recognized that positions within OJCS were particularly important because of the JCS responsibility for strategic planning and direction. It concluded that the Service personnel management systems must provide the best qualified officers for such positions. The study also identified some positions within the offices of the Service operations deputies which should be considered to qualify as joint tours. The examples included were staff officers within the War Plans Division of the Army Office of the Deputy Chief of Staff for Operations because the work being done was inherently joint. The same consideration applied to staff officers in comparable strategic plans and policy directorates in other Service staffs. OJCS stands for Office of the Joint Chiefs of Staff and reflects the accepted vernacular before the Goldwater-Nichols Act made the OJCS into the staff for the Chairman of the Joint Chiefs of Staff. The vernacular then changed to The Joint Staff. ASD (MI&L) Report, p. 9.

[31]Office of the Chairman, The Joint Chiefs of Staff, CM 344-90, Military Education Policy Document (Washington, D.C.: Office of the Chairman, The Joint Chiefs of Staff, 1 May 1990), p. I-1. Hereafter referred to as MEPD.

[32]Ibid., pp. II-1, -2.

[33]The MEPD framework is shown at Appendix B

[34]MEPD, p. II-6.

[35]The application level refers to a level of learning which allows the student to use learned materials in specific instances. It is derived from Bloom's educational taxonomy for learning in the cognitive domain. The MEPD considers Bloom's taxonomy for the cognitive domain and Kratwohl's taxonomy for the affective domain. Both are diagrammed in Appendix C of this monograph.

[36]MEPD, pp. II-6, -7.

[37]This conclusion is based on the opinions of senior military officers from all services who have addressed SAMS students; remarks by the Skelton Panel; remarks from allied military officers; and articles and reports about Operations JUST CAUSE, DESERT SHIELD, and DESERT STORM. As an example, see Sean Naylor, "Jedi Knights Put Together A Winning Plan", Air Force Times, 51 (38), (Springfield, VA: The Times Journal Co., 29 Apr 1991), pp. 10, 16.

[38]The process begins with the student volunteering during the beginning of the command and staff college year. All candidates then take a diagnostic examination which evaluates their technical proficiency at the tactical level, their judgment, their reasoning, and their ability to communicate their ideas in writing. The examination results are reviewed with other academic evaluations conducted as part of the command and staff college. Also, each candidate must undergo a personal interview with the director of SAMS or his representative. This interview assesses the candidate's ability to develop reasoned answers to a broad variety of questions and communicate them in a clear manner. A refined list of candidates is submitted to the various career managers for a professional development assessment. The career managers identify officers who do not have high potential for positions of increasing authority as well as officers who have other limitations and recommend against their selection. (Other limitations include utilization obligations from fully funded advanced civil schooling or professional development time lines which are too restrictive to permit an additional year of study followed by a utilization tour. Knowledge of this procedure is based on the author's experience as the Combat Arms Professional Development Officer, Combat Arms Division, Officer Personnel Management Directorate, U.S. Total Army Personnel Command from 1989 to 1990, prior to attending the Army Command and General Staff College.) This further refined list is returned to the command and staff college which convenes a board of colonels to select the primary and alternate students for the next class. Lieutenant Colonel John F. Goodman, USMC, Director, School of Advanced Warfighting, telephone interview, 11 Feb 1992. Hereafter referred to as Goodman telephone interview.

[39]U.S. Marine Corps, School of Advanced Warfighting, Syllabus, AY 1990-91, (Quantico, VA: U.S. Marine Corps Command and Staff College, 1990), p. I. Hereafter referred to as SAW Syllabus.

[40]Ibid., p. I. Goodman telephone interview.

[41]SAW Syllabus, p. 1-1.

[42]Ibid., p. 2-2.

[43]Ibid, p. 3-1.

[44]Ibid., pp. 1-6, 2-12, 2-30. Travel in the 1990 - 1991 school year included a tour of Congress and discussion with Representative Ike Skelton, a visit to the JCS and the Secretary of the Navy, and a visit to the State Department. In the 1991 - 1992 school year, travel supported three campaign study trips. The first was a week long trip to study the Antietam Campaign. The second was a month long trip to Europe to study the 1940 German Campaign, the 1942 Dieppe Raid, and the 1944 Allied landings and breakout from Normandy. The last trip was a two week trip to study the Lee - Grant campaigns of 1864 and 1865. 1991 - 1992 information taken from note, Goodman to Brooks, accompanying SAW Syllabus.

[45]Goodman telephone interview.

[46]Ibid.

[47]Ibid.

[48]School of Advanced Airpower Studies, "Course Descriptions", 15 Feb 1991. Hereafter referred to as SAAS, "Course Descriptions".

[49]Ibid.

[50]Dr. Harold R. Winton, Professor of Military History, School of Advanced Airpower Studies, telephone interview, 6 Mar 1992. Hereafter referred to as Winton telephone interview.

[51]Ibid. Joe West, "Air Force to Develop Soldier-Scholar", Air Force Times, 51 (38), (Springfield, VA: The Times Journal Co., 29 Apr 1991), pp. 10, 16.

[52]Winton telephone interview.

[53]A board of colonels from the Air University screens all the voluntary applications and makes a preliminary selection. This has the primary purpose of evaluating whether or not an applicant has the demonstrated aptitude to meet the academic rigors of the course. The preliminary list is submitted to a panel of three general officers: the Air University Commander, an operations officer from the Air Staff, and a personnel manager from the Air Staff. The panel of generals actually selects the students for the class. Winton telephone interview.

[54]Ibid.

[55]MEPD, p. A-2.

[56]The Bekaa Valley is used for Electronic Warfare, Operation EL DORADO CANYON is used for Command and Control, Operation ICEBERG is used for the Commander's Estimate, Operation PASTEL is used for Deception Planning, and Savo Island is used for assumptions.

[57]Lieutenant Colonel J. J. Wright, USAF, "JPME Phase II Overview Briefing", Fort Leavenworth, KS, 4 December 1991.

[58]The Army Command and General Staff College, by virtue of the overall curriculum design, teaches students joint subjects beyond the knowledge level of learning. Therefore, graduates of this program will have done in Phase I nearly everything that they will be required to do in Phase II. The significant aspect that the Army school lacks is the joint environment of the Armed Forces Staff College. A student from the Marine Corps Command and Staff College may not find the same amount of repetition. This conclusion has several sources. After receiving a 15 April 1992 briefing on the Army Phase I program, the Commandant of the Armed Forces Staff College acknowledged that the Army Phase I course, though excellent, covered most of what his course covered. He highlighted the joint environment as the most significant difference. A Naval officer assigned to United States Space Command after attending the Army Command and General Staff College and Phase II expressed this opinion. The opinion was seconded by an Air Force officer who attended Phase II and now teaches Phase I at the Army Command and General Staff College. An Army officer assigned to United States Central Command who attended the Marine Corps Command and Staff College shared the view that he did not find much repetition between Phase I and Phase II. See United States Army Command and General Staff College, "CGSOC Program for Joint Professional Military Education (PJE Phase I) Academic Year 1991-92", Fort Leavenworth, KS, p. 8.

[59]From Military Education Division, J-7, The Joint Staff, briefing slides included in Military Education Coordinating Conference, "Panelist Booklet for Military Education Coordinating Conference Meeting, 7 Nov 1991", (Military Education Coordinating Conference, November 1991).

[60]Based on the author's experiences as a career manager and professional development officer at the U.S. Total Army Personnel Command from 1988 to 1990.

[61]MEPD standards are from MEPD, p. III-3. Skelton Panel standards are from Skelton Panel Report, p. 88.

[62]A table showing the numerical values of this comparison is at Appendix D.

[63]Art of War Studies is the Marine Corps' senior level professional military education program which began in 1990. Curt B. Southwick, Lieutenant Colonel, "The Marine Corps Art of War Studies", Marine Corps Gazette, 75 (1), (Quantico, VA: Marine Corps Association, Jan 1991), pp. 47 - 48.

[64]MEPD standards are from MEPD, pp. III-3, -4, IV-A-3. Skelton Panel standards are from Skelton Panel Report, p. 88.

[65]SAW Syllabus, p. IV.

[66]SAAS, "Course Descriptions". Winton telephone interview.

[67]SAMS students have engaged in direct discussions with members of the National Security Council, Ambassadors, authors of significant theoretical or historical works, the planners of Operations DESERT STORM and PROVIDE COMFORT, the Joint Task Force Commander for Operation JUST CAUSE, two Commanders in Chief, two Deputy Commanders in Chief, two former Commanders in Chief, several of the primary staff directors in The Joint Staff, the Army Chief of Staff, and the Chairman of the Joint Chiefs of Staff, to name just a few.

[68]SAMS also conducts a Joint Headquarters Orientation which involves visits to US Central Command, US Special Operations Command, US Atlantic Command, Supreme Allied Command Atlantic, Fleet Marine Force Atlantic, Naval Special Warfare Group #2, the Army Staff, and The Joint Staff.

[69]Skelton Panel Report, p. 72.

[70]MEPD, p. viii.

[71]Modeling the school after SAMS is consistent with the findings of the Skelton Panel Report which singled out the SAMS program as a very good example of what it considered to be an exemplary professional military education program. The reason for the notoriety was the exceptional focus, pedagogy, and faculty. The panel further commended SAMS as the model for a course to produce Joint Specialty Officers at the Armed Forces Staff College. Skelton Panel Report, p.106, pp. 182 - 183.

[72]The approximation of ninety students is based on the number of officers currently receiving advanced education at the intermediate level (ninety-seven), rounded evenly for ease of comparison.

[73]An examination lasting three to four hours would test the candidate's technical proficiency within his or her own Service, the candidate's logic and thought processes, and the candidate's written communication skills. The collateral benefits of such an examination include a determination of the candidate's willingness to voluntarily endure a test of such rigor, beyond the scope of the command and staff college curriculum -- an indication of self-motivation; and a determination of the candidate's ability to function under academic duress.

[74]The best candidates would be those who have high potential for increasing rank, who will not jeopardize their professional development timing by attending the course, and who will add leavening to the student body through their experience. The types of specialties chosen should represent those primarily involved in operations, logistics, or intelligence.

[75]If a senior service college fellowship like the Army Advanced Operational Studies Fellowship were to be established in the AFCOS, it would provide a ready population to fulfill some of the faculty roles. Ideally, the seminar leaders would be graduates of the National War College or the Industrial College of the Armed Forces and would hold Critical Occupational Specialties. The assignment would last for two years and would count as a joint duty assignment as defined in the MEPD.

[76]Colonel George B. Forsythe, "The Preparation of Strategic Leaders", Parameters, XXII, (1). (Carlisle Barracks, PA: U.S. Army War College, Spring 1992), pp. 45 - 46. Colonel Forsythe, from the United States Military Academy Department of Behavioral Sciences and Leadership, offers some additional methods of creating an academically rigorous environment which leads to enhanced leader development. He was addressing the development of strategic leaders, but his remarks have particular relevance to the development of operational artists also.

[77]School of Advanced Military Studies, "European Crisis Response Exercise", February 1992.

[78]Carl von Clausewitz, On War, tr. and ed. by Michael Howard and Peter Paret, (Princeton: Princeton University Press, 1984), II, p. 156.

[79]Gapping refers to positions left unfilled between the departure of one officer and the arrival of a replacement.

[80]The eight criteria are listed in detail in Appendix E

[81]Military Education Coordinating Conference, "Panelist Booklet for Military Education Coordinating Conference Meeting, 12 April 1991", (Military Education Coordinating Conference, April 1991), Tab J. Hereafter referred to as MECC Meeting, 12 April. The numerical JDAL, by type headquarters and grade requirement, is at Appendix F.

[82]As it is now, approximately 1,500 officers are annually assigned to joint duty positions. Roughly 1,000 of these require a Joint Specialty Officer or nominee which must be produced by the Phase II program. The maximum capacity of any given Phase II class is currently 300 officers (900 per year). Therefore, it is necessary for some officers to report directly to their assignments and attend Phase II at a later date. Sending all officers through the proposed one year course would only exacerbate the existing problem. MEPD, p. IV-D-3.

[83]Quoted in M. Richard Rose and Andrew J. Dougherty, "The System and the Challenges: An Overview", in "The System for Educating Military Officers in the U.S.", International Studies Occasional Paper No. 9, Ed. Lawrence J. Korb (Pittsburgh, Pennsylvania: International Studies Association, 1976), p. 17.

[84]Skelton Panel Report, p. 9.

[85]MEPD, p. A-4.

[86]Ibid., p. A-2.

[87]Ibid., Annex B to Appendix B, "Guidelines for the Process for Accreditation of Joint Education," pp. B-B-1 - B-B-5.

[88]MECC Meeting, 12 April. 1992, Tab J.

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